## REPORT OF THE BRIAN A. TECHNICAL ASSISTANCE COMMITTEE

# UPDATE ON DEVELOPMENTS RELATED TO THE TFACTS EVALUATION FINDINGS AND RECOMMENDATIONS

June 11, 2014

## **TECHNICAL ASSISTANCE COMMITTEE**

Steven D. Cohen Senior Fellow Center for the Study of Social Policy Washington, D.C.

Judith Meltzer
Deputy Director
Center for the Study of Social Policy
Washington, D.C.

Andy Shookhoff Attorney Nashville, TN

Paul Vincent
Director
Child Welfare Policy and Practice Group
Montgomery, AL

## SPECIAL CONSULTANT TO THE TAC

John Ducoff Flemington, NJ

## TECHNICAL ASSISTANCE COMMITTEE STAFF

Colleen Gleason Abbott Michelle Crowley Jamie McClanahan Kelly Whitfield

## I. Introduction

This document, prepared in anticipation of the Status Conference scheduled for June 20, 2014, provides a brief update on the work that the Department of Children's Services (DCS) has done over the nine months since the September 2013 *Brian A*. Status Conference to improve the operation of the Tennessee Family and Child Tracking System (TFACTS) and address the remaining areas of concern discussed in the previous TFACTS Status Update issued by the *Brian A*. Technical Assistance Committee (TAC) on September 17, 2013.

John Ducoff, the chair of the TAC's TFACTS Evaluation Team, has continued to work with the TAC to monitor the implementation of TFACTS-related improvements undertaken by DCS in response to the findings and recommendations of both the Department's internal assessment and the external evaluations conducted by the TAC and others. Mr. Ducoff has continued to confer with DCS and review relevant materials requested from and provided by the Department. On two visits spanning February 6-7 and May 8-9, 2014, Mr. Ducoff met with Commissioner Henry, the Department's programmatic leadership, and key information technology (IT) staff. He has also participated in conference calls and facilitated peer-to-peer technical assistance between DCS staff and their counterparts in New Jersey to help DCS explore opportunities to benefit from New Jersey's experience with its Statewide Automated Child Welfare Information System (SACWIS). In addition, as encouraged by the Court, Mr. Ducoff has continued to make himself available to the plaintiffs' counsel (including two face-to-face meetings since his February site visit, one in February and one in June) to provide updates and to respond to TFACTS-related questions and concerns.

Mr. Ducoff will attend the Status Conference on June 20 and will be available to answer any questions related to this update and to participate in any TFACTS-related discussions that the Court deems appropriate.

The following discussion describes the Department's efforts since September 17, 2013 to improve TFACTS functioning in the areas that have been the focus of the Court's concerns.

## II. Executive Summary

A. Should the Court continue to have concerns about the Department's ability (and the capacity of TFACTS) to maintain accurate and complete individual case files and to produce accurate aggregate reporting from those case files?

At the September Status Conference, the Court observed that "in the past, the [TFACTS] system has not operated as intended. It didn't capture the information needed. It did not give accurate information." The Court asked when this problem of case file accuracy and reporting accuracy would be "solved."

The TAC therefore wants to state clearly at the outset of this report that the TFACTS electronic case file system functions adequately to "capture information needed" and that TFACTS is currently generating aggregate reporting that provides "accurate information" to meet the vast majority of the Department's management needs. TFACTS is currently a stable, reasonably well-functioning information technology system that is supporting the Department's work serving children and families throughout the state of Tennessee. While there continue to be challenges that the Department is addressing, the system as a whole both allows case managers to document their work and provides the Department's management with aggregate data that are sufficiently accurate to allow the Department, the TAC, and the Court to assess and evaluate DCS's performance in relation to the requirements of the *Brian A*. Settlement Agreement. Given this assessment, the TAC has not found any justification for replacing TFACTS at this point, particularly because deploying a new system to replace TFACTS would require the Department to face and overcome many of the very same challenges and obstacles that DCS has spent the last four years addressing, as those challenges and obstacles are inherent in the development and deployment of any information technology system that is the size and scale of TFACTS.

Individual electronic case files in TFACTS allow caseworkers to record the relevant information and documentation about the child, the family, and the case work activities that a child welfare system case file should contain. When workers enter information into TFACTS, that information is captured in the file. Information that is accurately entered into the file is accurately displayed in the file, preserved, and available to anyone with access to open the file.<sup>1</sup>

The Department is continuing to work to make data entry easier, to create additional guardrails to reduce data entry error or omission, and to take advantage of recent developments in mobile technology that will allow workers to have a more nimble interface with TFACTS. Improvements that help workers enter data more efficiently, print out documents more quickly, or access relevant information with fewer clicks of a mouse, are important because workers can

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<sup>&</sup>lt;sup>1</sup>As with any filing system, electronic or otherwise, that depends on human beings to enter information, there is always going to be some amount of data entry error or omission.

then devote more time to actual casework. But the Court should not view these ongoing improvement efforts as an indication that TFACTS files are any less accurate, less reliable, or less complete, than the case files of any other responsibly run child welfare system.

With respect to aggregate report accuracy, as is reflected in the data presented throughout the May 2014 Monitoring Report, the Department is able to produce, by drawing from and aggregating the data in individual case files, a wealth of accurate aggregate reporting both to run its day-to-day operations and to measure key child and family outcomes and evaluate core elements of system performance. This includes a number of new validated reports related to the Termination of Parental Rights (TPR) process timelines and another set of reports related to the Child and Adolescent Needs and Strengths Assessment (CANS), as well as a number of improved and expanded versions of or better alternatives to previously produced reports.

There remains one critical area for aggregate reporting—caseloads—for which the Department continues to use manual data tracking, aggregation, and reporting. For reasons discussed below, the TFACTS enhancement required to allow automated caseload tracking and aggregate reporting has been delayed and automated caseload tracking is not expected to be available for review and validation until October 2014. There are other areas for which automated aggregate reporting is not yet available, such as diligent search, for which having automated reporting is important, although not as critical to effective child welfare system management as caseload reporting.<sup>2</sup>

Nevertheless, from the standpoint of the TAC's ability to monitor and report to the Court, and the Department's ability to monitor its own performance, for those areas for which aggregate reporting is still not available, there are satisfactory alternate sources of information and alternative methods that can be relied on by the TAC to report sufficiently on the Department's performance. More importantly, notwithstanding the importance of the Department moving forward expeditiously to develop a handful of reports that it still lacks, the Department currently has sufficient data to understand its performance and fashion and implement strategies for system improvement.

## B. Will there be a time when TFACTS has been "fixed"?

The process of developing, deploying, and using any SACWIS system, not just TFACTS, does not have a defined end. Child welfare practice and administrative requirements are continually changing, and, as a result, after working through the initial challenges that are endemic to the deployment of a SACWIS system, a child welfare agency must develop the capacity—*i.e.*,

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<sup>&</sup>lt;sup>2</sup> Caseload reporting and diligent search reporting are the two remaining relevant areas for report development from what was previously referred to as "Appendix A" reporting.

information technology staff and the systems and processes to manage those staff—to maintain, enhance, and fix a system for the entire period that the system is in use. Modifications and enhancements will continue to be needed, and "defects" that will continue to arise will need to be "fixed" until the system is fully retired from service, often decades after initial deployment. While there are certainly defined end dates for particular pieces of work to enhance a SACWIS system, there is no date when the system as a whole is complete and no longer requires any work. Work on a SACWIS system is therefore not "done" until the system is finally replaced (just as TFACTS replaced TNKids) and the old system is shut off for good.

As discussed in previous Status Updates, there was a time when the significant design flaws in TFACTS, including the use and misuse of the Optimal J code writing tool, combined with the lack of capacity of DCS to maintain such a large and complex system, posed serious challenges. However, the system has been fully stabilized and those challenges that, among other things, gave rise to the wholesale revamping of the Department's Information Technology, function have been resolved. The challenges that remain are now largely those that are to be expected in a normally operating system that is working to keep up with changes in policy and practice on the one hand, and improvements in technology on the other.

## C. What progress has the Department made since the September Status Conference?

Since the September 2013 TFACTS Update, the Department has continued to drive forward specific pieces of work discussed in that report and to build, enhance, and maintain the information technology staff and the governance structure to manage those staff. The Department's results during this period have been mixed. As reflected in the September 2013 TFACTS Update, through its Management Advisory Committee (MAC),<sup>3</sup> the Department prioritized several pieces of work in both aggregate *Brian A*. reporting areas and enhancements to improve the functioning of the system for end users. Some have been completed on time, but others have been delayed. Those priorities included: <sup>4</sup>

- TPR reports
- CANS Extract
- Case Assignment Role enhancement (and related caseload reporting)
- Permanency Plan enhancement
- Fiscal enhancements
- Child Death Reporting enhancements

<sup>&</sup>lt;sup>3</sup>As described in the September 2013 TFACTS Update, the MAC is the Department's structure to involve the programmatic leadership in prioritizing the work of the Department's information technology staff.

<sup>&</sup>lt;sup>4</sup> The Department also identified, but appropriately did not prioritize for delivery, reporting regarding diligent search efforts and a system enhancement regarding well-being and health.

## • Incident reporting

To date, the Department has completed the work on the TPR reports and CANS Extract and has implemented the necessary fiscal enhancements to ensure that, through an automated process with very limited need for manual reconciliation, vendors are paid (and not overpaid).

During this period, the Department also completed another significant enhancement, not included on the initial MAC priority list, to support "Independent Living" activities and services (including the claiming of federal funds under the *Fostering Connections to Success and Increasing Adoptions Act*, P.L. 110-351). The Department leadership determined that this work should proceed in addition to (and ahead of) the previously prioritized projects.

It is, of course, appropriate for the Management Advisory Committee to re-examine priorities and adjust development plans and allocation of IT resources. In fact, it would be expected that a mature, well-functioning MAC, would make adjustments in project schedules periodically, and, for example, the decision to move ahead with the Independent Living (IL) enhancement was a very reasonable decision.

However, it does not appear that the MAC understood (or that the Department's Chief Information Officer [CIO] at that time<sup>5</sup> effectively communicated) the substantial amount of work that the IL enhancement entailed and the impact it would have on the schedule for other projects, particularly the Case Assignment enhancement needed to produce automated caseload reports (which was a project that had been assigned to the same team working on the IL enhancement).

The MAC also failed to appreciate (and the CIO failed to make clear) that the Department's IT staff were simultaneously receiving direction from other State Government agencies outside of DCS, most notably the State Office of Information Resources (OIR), regarding work that OIR instructed had to be done on a priority basis. That work required OIT to reallocate its staff to focus on those initiatives rather than the priorities set by the MAC.

In addition, the OIT staff assumed responsibility for additional technical work that, although helpful and worthwhile, was not on the list of MAC priorities and as a result should not have been undertaken without an explicit decision by the MAC to revisit those priorities and add this work to it.

Finally, the Department's IT staff and functional units did not re-align quickly to the priorities set by the MAC, and, as a result, work continued on some initiatives that had been ongoing but had not been prioritized by the MAC, resulting in the diversion of staff resources for a time.

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<sup>&</sup>lt;sup>5</sup> As discussed below, the person serving as the Department's CIO at that time has since left that position.

Because of insufficient communication between the CIO and the MAC, it was not until January of 2014 that the Commissioner and his leadership team became fully aware of the extent of the delays on three prioritized projects: the Case Assignment Role enhancement; the Permanency Plan enhancement; and the Incident Reporting enhancement.<sup>6</sup>

During the first quarter of this year, as many of these schedule delays came to light, there was a change in leadership of the Department's Office of Information Technology (OIT). The Department's Chief Information Officer resigned and took another position within state government. The Commissioner appointed Joe Huertas, who had been serving as the Deputy Chief Information Officer, to serve as Interim CIO. Mr. Huertas, a highly-experienced IT leader and manager who formerly served as the CIO at the Texas Department of Health and Human Services, has been intimately involved in overseeing the diagnosis and remediation of the challenges emanating from the original flaws in the design and early implementation of TFACTS and bringing "industry standard" IT practices to the Department.

Mr. Huertas undertook a comprehensive analysis of each of the prioritized work projects that had fallen behind and of other projects that OIT had undertaken; clarified issues related to the scope of work of these projects, the current status of that work and factors contributing to any delays; and candidly assessed the resources required for each of these projects (including the specific skill sets required on the teams undertaking these projects), and the current resources available to OIT to allocate to those projects.

Based on this analysis, the MAC concluded that OIT needed additional resources, and in March, in the middle of a difficult budget year, the Commissioner obtained from the Governor an additional \$750,000 to hire 13 additional contract staff—five new software developers, two reports developers, four business analysts, and two quality assurance analysts, essentially doubling the development resources available to OIT—as well as five additional state IT staff. These additional resources will significantly enhance DCS's ability to execute the remaining enhancements in a timely fashion.

As unfortunate as it is that some important enhancements have not proceeded as quickly as had been initially expected, in the process of discovering and responding to the schedule delays and the factors contributing to those delays, the MAC has matured significantly as a decision making body that not only sets priorities but that ascertains whether existing resources are sufficient and, if not, obtains the necessary resources. The Commissioner now sets the agenda for the MAC. He has convened MAC meetings monthly, rather than quarterly, to ensure that issues are raised and resolved promptly. Mr. Huertas has brought a high level of transparency, frankness, and

<sup>&</sup>lt;sup>6</sup> Work on a fourth prioritized project, the Child Death Reporting enhancement, had also been delayed, but that delay was a result of work which those involved in implementing the Child Death Review process had not yet completed related to the operational definition (for TFACTS tracking and reporting purposes) of a "near death case."

accountability to the work of OIT and to the MAC discussions that is fully appreciated and supported by the Commissioner. As a result, communication between the IT and business sides of the Department has significantly improved, and that should have a positive impact on both the quality and timeliness of the work going forward.

## III. The Department's TFACTS-related work since September 2013

As discussed in Section II above, in September of 2013 the Department committed to deliver several priority items by June of 2014. Those priorities included: a set of TPR reports, the CANS Extract, the Case Assignment Role enhancement (and necessary caseload reporting); the Permanency Plan enhancement; Fiscal enhancements; Child Death Reporting enhancements; and Incident reporting.

In addition to these prioritized reports and enhancements, the Department had a continuing responsibility to address discrete fixes and other enhancements requested by staff. All fixes and enhancements that the Department has completed are reflected in "release notes," which document all changes made to the TFACTS system. Those that remain pending are documented in the Department's "All Defects" list, which is essentially a list of all outstanding work requested by system users.

The TAC reviewed the status of all of these items to identify those items that are completed (including the priorities identified by the MAC in the September 2013 TFACTS Update and all items implemented and documented in release notes); items that are underway but that have not yet been implemented; and items that remain outstanding, which are documented on the "All Defects" list.

## A. Completed Work

## 1. Priority Items Completed

Since the September 2013 TFACTS Update, the Department completed:

- The TPR reports, which have been validated as accurate by the TAC;
- The CANS Extract, which has also been validated as accurate by the TAC; and
- The necessary fiscal enhancements, such that the Department's auditors have agreed that TFACTS functions appropriately, the Department can ensure, through a combination of manual and automated processes, that

vendors are paid (and not overpaid), and that TFACTS supports maximizing federal claiming opportunities.

During this period, the MAC also appropriately prioritized and completed another enhancement to support Independent Living (and associated claiming of federal funds under the federal Fostering Connections to Success and Increasing Adoptions Act, P.L. 110-351).

As discussed at length in the April 2013 TFACTS Evaluation Report and the September 2013 TFACTS Evaluation Update, the Department has expended significant effort during the last two years to remediate and enhance TFACTS' fiscal functionality, which has been the source of many challenges largely because the pre-implementation design sessions were deficient.

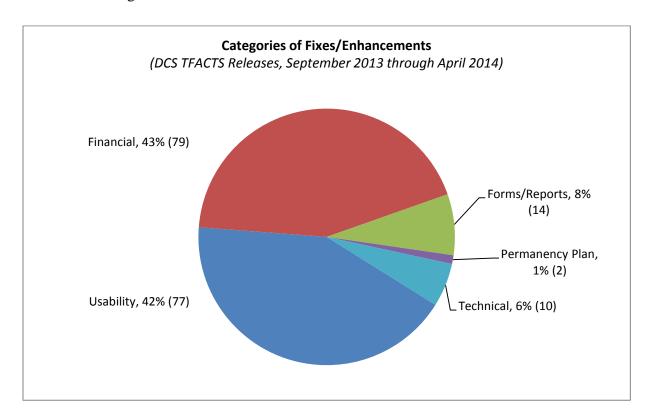
The Department first retained an outside vendor, Compuware, to stabilize the fiscal module. The fiscal project that the Department committed to in September was focused on enhancing the stabilized module to better support the Department's fiscal work. As of the date of this report, OIT staff working closely with the DCS fiscal staff have implemented additional enhancements that, while not yet eliminating some need for manual reconciliation of overpayments, have, through implementation of a number of guardrails, reduced the number of cases requiring manual reconciliation. A recent Performance Audit conducted by the Tennessee Comptroller and discussed in more detail in the May 2014 Monitoring Report found that the combination of TFACTS improvements and the manual reconciliation process has satisfactorily addressed the concerns related to TFACTS financial functionality raised in prior audits.

Because this work is complete, the Department can now focus its IT staff and resources on fixes and enhancements that apply more broadly across the Department. Relatively few staff use the fiscal elements of TFACTS and they are primarily Central Office staff. In contrast, there are more than 2500 case managers and support staff in the field who rely on TFACTS' case management functionality to support their work with children and families. By completing the necessary fiscal work the Department can now focus increased attention on the TFACTS fixes and enhancements that will improve usability for those staff in the field.

## 2. Additional Fixes and Enhancements Completed

Since the September 2013 TFACTS Update, the Department has implemented eight sets of fixes and enhancements (known as "releases") to TFACTS. Each fix and enhancement relates to an identified defect or necessary enhancement that has been raised by end users of TFACTS to OIT for resolution. These releases reflect a comprehensive itemization of all fixes and enhancements made to TFACTS during this period, including the prioritized enhancements discussed above. The eight TFACTS releases from September 2013 to April 10, 2014 included a total of 182 fixes

and enhancements: 11 implemented on October 17, 2013; 41 on November 14, 2013; 25 on December 12, 2013; 2 on December 19, 2013; 23 on January 23, 2014; 45 on February 13, 2014; 24 on March 13, 2014; and 11 on April 10, 2014. The fixes and enhancements deployed are detailed in the figure below:



In the September 2013 TFACTS Update the TAC noted that the release notes demonstrated that the Department focused attention on those key issues identified by the field in response to the TAC's case manager survey. The Department has continued to do so, deploying fixes and enhancements around usability (77), forms and reports (14), and the permanency plan (2). During this period, however, the Department's efforts have focused more intensively on the TFACTS fiscal module; in fact, the number of fiscal-related fixes and enhancements exceeds the number of usability fixes/enhancements. As discussed above, this represents the completion of the prioritized fixes and enhancements to the fiscal functionality, and, as a result, the TAC expects the number of fixes and enhancements to decline dramatically in future periods while the number of fixes and enhancements helpful to field staff to increase in direct proportion.

## **B.** Work Behind Schedule

The schedules for the enhancements (and related caseload reporting) that the Department committed to in the September 2013 TFACTS Update are delayed, some with appropriate justification and some without. These include: the Permanency Plan enhancement; the Child

Death Reporting enhancement; and the Incident Reporting enhancement. Each will be discussed in turn.

## 1. The Case Assignment Enhancement and Related Caseload Reporting (CPS Case Manager Case Activity Report; Brian A. Caseload Compliance Report, and the Brian A. Caseload Supervision Report)

Accurate automated caseload reporting (including three specific *Brian A*. related caseload reports) are dependent on a TFACTS enhancement that would make changes in the case assignment function.<sup>7</sup>

To date, the Department has completed the comprehensive analysis of staff roles and responsibilities necessary to redesign the case assignment function in TFACTS and is in the process of implementing the redesign. Initial project meetings with customers to validate requirements have been held and significant elements of the underlying technical work are complete. Preliminary decisions (subject to change as necessary during the development process) have been made regarding the following issues mentioned in the September 2013 TFACTS Update:

- roles have been identified for staff who work with resource homes and non-custody cases:
- DCS has decided that no fiscal administration assignment role is necessary to complete fiscal functions in TFACTS;
- the "supervisor" assignment role will be discontinued, and TFACTS will instead use information from another source within TFACTS to identify the supervisor of an assigned employee;
- the "primary caseworker" designation will also be discontinued; and
- assignments will be made to specific children within the family case.

The Department had anticipated that the TFACTS enhancement related to case assignment would be completed by March 2014. However, this work was delayed to allow completion of the Independent Living enhancement discussed above. A fully staffed team has begun this work and the current deployment schedule calls for this enhancement to be fully functional by

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<sup>&</sup>lt;sup>7</sup>As noted in the April 2013 Evaluation of TFACTS, the change from a system organized around a "child case" (as was TNKids, the predecessor system to TFACTS) to a "family case" adds a level of complexity to designing a caseload report. Much of that complexity stems from the need to be able to distinguish between and among the various DCS staff working with one or more members of the family—CPS investigators, assessment workers, case managers, supervisors, and others—some of whom may have primary case management responsibility for one or more of the children in the family and others who may be working with the family in some other capacity. The case assignment role designations currently in TFACTS do not align with the caseload reporting needs of the Department.

December 2014. After this enhancement is complete the Department will then need to modify the existing reports, which will finalize this work in full, by January 2015.

The Department has included TAC monitoring staff in the planning and execution of this work, including both the redesign of the case assignment roles and implementation planning. The TAC has been impressed by the approach taken by the OIT staff person leading the redesign team, including the way in which he has actively engaged program staff as regular participants in the design process. The quality of the communication and collaboration with program staff and the meticulous approach toward the substance of the redesign gives the TAC a high level of confidence in the ultimate success of this initiative.

The Department expects reporting on *Brian A*. caseloads and supervisory workloads, as well as CPS investigation and assessment caseloads (including the Special Investigations Unit) will also be available prior to full implementation of the Case Assignment Role enhancement. Specifications are currently in development for the *Brian A*. caseload and supervisory workload reports, which will provide detailed caseload compliance measurements on all case managers who are assigned to a *Brian A*. class member and on all supervisors who supervise an employee who is assigned to at least one *Brian A*. class member during the period covered by the report. Initial drafts of the reports are expected to be available for review and validation by October 2014.

In light of the absence of comprehensive aggregate TFACTS reporting that can be relied on for internal management and external monitoring, the Department has continued to track caseloads manually. The Department, in collaboration with the TAC, has made further refinements to the manual tracking process to improve both the Department's ability to use the manual tracking process for internal management and the TAC's ability to use this manual tracking for monitoring and reporting on caseloads and supervisory workloads. And, as is discussed more fully in the May 2014 Monitoring Report, these data have been sufficient to allow the Department to identify regions or clusters that have had difficulty maintaining caseloads within caseload limits and to develop and implement strategies to respond to those situations.

This manual reporting will also serve as a vehicle for validating the aggregate caseload reporting from TFACTS once that reporting becomes available. For a period of time, the new TFACTS caseload reports will be run in parallel with the existing manual caseload tracking system.

## 2. Permanency Plan Redesign Enhancement

This work is to address case manager complaints about the complexity of the permanency plan in TFACTS, which, as previously discussed, continues to be one of the most frequent complaints case managers have about the system. The Department had planned to deploy this functionality

in five releases, with the last release anticipated in June 2014 and the enhancement to be fully functional by July 2014.

Notwithstanding the importance of this enhancement to the field staff, little additional work has been done on this enhancement since September and no significant effort is planned on this enhancement until June 2014. This is in large part a result of an expansion of the scope of the permanency plan redesign. As envisioned by the original design several years ago, much of the permanency plan was to be linked to information captured in other fields in TFACTS so that relevant information from those other parts of TFACTS would be auto-populated into the permanency plan. However, the additional costs associated with linking the permanency plan module with these other parts of the TFACTS case file were deemed prohibitive at the time TFACTS was under development. The Department therefore built the fields of the permanency plan to anticipate a time when an enhancement could be done to TFACTS that would connect the plan with those other parts of the case file.

Initially, the Department viewed the permanency plan enhancement as intended to do just that—link all of the existing parts of the permanency plan together in TFACTS. However, the Department has appropriately recognized that if it is going to invest in a redesign of the permanency plan module, it should not restrict itself to the design contemplated by the original TFACTS developers. Even setting aside concerns about the quality of the work done by the original contractor, the Department has decided that it should not assume that something that developers came up with over four years ago, even if it made sense then, is what the Department needs now.

Instead, the Department has decided to look at current expectations for policy and practice related to TFACTS, including key developments in permanency planning requirements for older youth, draw heavily from the expertise and experience that the field now has with TFACTS as well as the significantly more sophisticated IT expertise now available to the Department, and redesign the permanency plan to meet a current vision of what the field needs. The TAC believes this is an appropriate re-envisioning of the permanency plan redesign work; the Department's practice has changed in the last five years since the permanency plan in TFACTS was first designed, and it is not only appropriate, but incumbent upon the Department to reevaluate the design of the permanency plan to ensure that it meets current practice rather than the practice of five years ago.

This more ambitious scope of work will require a level of collaborative design development and frequent interaction between the OIT and program staff that will test how much progress the Department has made in overcoming the communication and collaboration challenges that were highlighted in the TAC's initial TFACTS Evaluation. Assuming that the delay in moving forward with the permanency plan enhancement allows the Department to convene the right

design team with active, ongoing membership from the program side, convened and facilitated by a skilled and knowledgeable project leader, and that this work begins in earnest in June (as the Department has indicated), the delay will certainly have been justified.

## 3. Child Death Reporting Enhancements

These enhancements are to modify TFACTS to better align TFACTS with the recently-implemented revised Child Death Review process. DCS had planned to deploy this functionality in two releases, with the last release anticipated in December 2013 and the enhancement to be fully functional by January 2014. However, before work could begin on this enhancement, the Department had to resolve certain policy and practice issues related to the definition of "near death" for purposes of qualifying cases for the Child Death Review process. Because DCS opted to expand the "near death" definition for purposes of its Child Death Review process beyond the definitions found in state and federal law, OIT had to wait until the Department settled on its expanded definition before the development work could begin in earnest. Those definitional issues were resolved in January 2014, delaying the time OIT could start on the technical work until then.

With programmatic issues resolved, OIT initiated two separate tracks to address the software modifications required. The first track provides for the enhancement of TFACTS to permit the capture of basic Near-Death data. This work was completed and implemented in March of 2014.

The second track, representing a more substantial set of work, involves the development of a custom set of TFACTS screens to create a "golden dataset" for child deaths and near-deaths data. Incorporating multiple redundancies in order to ensure acceptable data quality, this enhancement will support the collection of, and management and reporting on, data surrounding instances of child deaths and near-deaths. The Department planned to use the services of NIC, the State of Tennessee's web portal vendor, to develop this critical functionality enhancement. Using NIC, however, required obtaining the approval of the State Office of Information Resources, which delayed the start of this work. Based on that delay, the current schedule for this project calls for this enhancement to be implemented in October 2014.

## 4. Incident Reporting Enhancement

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<sup>&</sup>lt;sup>8</sup> While this enhancement will provide improved TFACTS reporting and support the new review process, the full implementation of the review process, including the tracking, analysis, and reporting contemplated by that process, is not dependent on this enhancement.

This project involves creating one unified incident reporting system for the Department, rather than the two systems that currently exist, revising types, subtypes, and severity levels of incidents to better reflect sound practice, improving usability, and revising and enhancing reporting. DCS planned to deploy this functionality in two releases, with the last release anticipated in January 2014 and the enhancement to be fully functional by February 2014.

Virtually all of the substantive policy and practice issues related to this enhancement had been resolved by program staff at the time that the TAC issued its September 2013 TFACTS Update. However, unwarranted delays within OIT, caused by, among other things, a lack of planning and project management focus, as well as recognition on the program side of the need to develop and deliver training to coincide with the release, have resulted in the postponement of deployment of the first release to the end of August, with the second release scheduled for December 2014.

The delays in implementation of the TFACTS enhancement have not prevented the Department's Quality Control Division, which serves both a quality assurance and coordination function with respect to the review and response to incident reports, from improving the review and response processes, utilizing the current TFACTS incident reporting functions, and generating aggregate data reports and analysis.

## 5. Health and Well-Being Enhancement

This enhancement is to re-design the manner in which TFACTS manages information pertaining to a child's well-being and health in order to make that information more integrated and usable for staff. While the development work on this enhancement is not scheduled to begin until the other prioritized enhancements are complete, the Department has determined that the focus of this enhancement will be on the fields and functions related to psychotropic medications, diagnostic code changes mandated by the federal government, and informed consent. The

Department has committed to begin this work immediately upon completion of the incident reporting enhancement.<sup>9</sup>

In addition to the challenges discussed above in connection with the prioritized enhancements, DCS OIT also faced more general barriers to timely completion of its work including:

- The Department's IT staff were receiving direction from other State Government agencies outside of DCS, most notably the State Office of Information Resources (OIR), regarding work that OIR instructed had to be prioritized. That work required OIT to reallocate its staff to focus on those initiatives rather than the priorities set by the MAC.
- The OIT staff assumed responsibility for additional technical work that, although helpful and worthwhile, was not on the list of MAC priorities and as a result should not have been undertaken without an explicit decision by the MAC to revisit the priorities and add that work to it.
- The Department's IT staff and functional units did not realign quickly to the MAC-set priorities, and, as a result, work continued on some initiatives that had been ongoing but had not been prioritized by the MAC, resulting in the diversion of staff resources for a time.

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<sup>&</sup>lt;sup>9</sup> The Department also identified, but appropriately did not prioritize for delivery, reporting regarding diligent search efforts. Before the Department can produce helpful aggregate diligent search reporting, the TFACTS fields need to be modified to better support the data entry needs of the case managers responsible for carrying out and documenting their diligent efforts to locate parents and grandparents. The Diligent Search enhancement has been assigned an OIT project number and the project description identifies both the issues that the redesign is intended to address and the relevant requirements (of both the *Fostering Connections to Success and Improving Adoptions Act* and the *Brian A*. Settlement Agreement) that must be documented in TFACTS and captured in aggregate reporting. Because of the number of other enhancements that have been appropriately given higher priority, the Diligent Search enhancement remains "in the queue" but has not been prioritized by the MAC. As a result, OIT has not yet focused resources on moving this work forward.

As discussed in the June 2013 Monitoring Report, the Department has been relying on periodic case reviews and on-going work by Central Office staff with the regions around diligent search to guide its efforts to improve practice in this area. The Department's current assessment is that diligent search practice is not yet meeting the requirements of the Settlement Agreement. As discussed in the September 2013 TFACTS Update, it is certainly important for the Department to move forward at some point to make it easier for field staff to document diligent search efforts, and aggregate reporting from TFACTS related to diligent search activities, once available, will no doubt be helpful, both for the Department's own internal management purposes and the TAC's monitoring purposes. However, the Department is not anticipating seeking to make the case for maintenance until the current documentation challenges have been addressed and until the aggregate data to support maintenance is available. And should the Department seek to establish maintenance before aggregate reporting is available or should the parties and/or the Court for any other reason wish the TAC to do so, the TAC is prepared to carry out an appropriate targeted case file review to provide the basis for further evaluating the Department's performance with respect to the diligent search requirement.

The Interim CIO, Mr. Huertas, has raised these challenges while moving diligently to address them with the full support of the Commissioner. The Commissioner's and the CIO's candid recognition of these challenges and their commitment to address them should ensure that these priorities can get back on track and the Department can deliver this work expediently.

## C. Update of the "All Defects" List

As noted in the September 2013 TFACTS Update, the Department maintains the "All Defects" list, a cumulative list of all issues with TFACTS since even before its deployment in August 2010. In the April 2013 Evaluation of TFACTS, the TAC analyzed and discussed the "All Defects" list as of February 28, 2013. In the September 2013 TFACTS Update, the TAC reviewed and compared the "All Defects" list, as of September 13, 2013, with the February 28, 2013 list. This subsection compares the "All Defects" list as of March 31, 2014 with the prior two versions of the list.

At the outset, it is worth noting that a list such as this will not necessarily show a decline in the total number of issues over time. As the Department continues to fix and enhance TFACTS and end users continue to use the system, new issues, defects, and potential enhancements will be identified and documented in the list, appropriately increasing the overall total. Essentially, as long as TFACTS is in use the total number of issues documented in this list will increase. The question is not whether the Department will address all of the issues on this list so that there will be a total of zero entries; the question is, instead, whether the Department is appropriately addressing the new issues, defects, and potential enhancements that come with using the system in a reasonable time frame, recognizing that the total number will continue to increase.

The following table compares the "All Defects" list as of March 31, 2014 with the list as of February 28, 2013 and September 13, 2013:

"All Defects" List Status									
	As of 2/28/2013	As of 9/13/2013	As of 3/31/2014	Difference (2/2013 vs. 3/2014)					
Total Items	10,490	10,827	11,034	544					
Closed	8,777	9,395	10,538	1,761					
Closed – Fixed	7,928	8,340	8,688	760					
Closed – Stale	835	1,041	1,837	1,002					
Closed – UTR	9	9	9	0					
Closed – Rejected	5	5	4	-1					
Open/In Process	1,713	1,432	496	-1,217					
Functionality									
Defects	606	368	251	-355					
Enhancements	205	152	103	-102					
Data Issues	805	798	88	-717					
Reports									
Defects	54	52	29	-25					
Enhancements	43	46	14	-29					
Infrastructure		16	11	-5					

As noted above, the total number of entries in the "All Defects" list increased by 544 as the Department identified additional defects in and necessary enhancements to TFACTS. 10 The Department closed a net of 1,761 items in total: 760 were closed as fixed; 1,002 were closed as stale; 11 and item, formerly designated as rejected, was re-opened. 12 After those closures, there were 496 open entries remaining on the list, 1,217 less than on February 28, 2013. Overall, these data show that the Department has continued to address the outstanding fixes and enhancements in a reasonable manner. The trends are appropriate: the Department continues to add issues to the total number outstanding as new enhancements and defects are identified; the Department continues to deploy fixes and enhancements at a reasonable rate; and the Department continues to assess the "All Defects" list to identify issues that have grown stale in order to focus and prioritize its efforts on those fixes and enhancements that are most important to the field.

<sup>&</sup>lt;sup>10</sup> Again, this is appropriate. As the Department continues to use TFACTS, staff will identify ways to improve it and will spot more minor defects that have not caused significant usability problems and/or new defects introduced inadvertently as other fixes and enhancements are implemented. As staff document both of those categories, the total number of issues on the "All Defects" list will increase.

<sup>&</sup>lt;sup>11</sup> See the April 2013 Evaluation of TFACTS at page 46, footnote 57.

<sup>&</sup>lt;sup>12</sup> OIT re-assessed that rejection and concluded that it is a valid defect to be fixed. As a result, the Department closed 1,762 items gross, and closed a net of 1,761.

The Department categorized the open entries into those that relate to the application's functionality, data issues, reports, and infrastructure, which includes technical issues with the application that can impact performance but that are otherwise transparent to end users. Since February 2013 the Department has continued to make progress on fixing and enhancing TFACTS functionality, closing a net of 355 defects and 102 enhancements. In the September 2013 TFACTS Update, the TAC noted that the Department's reporting showed minimal progress on data issues and reports. The Department explained that the problem was one of tracking -OIT's Data Management Unit (DMU), which is responsible for addressing data issues and reports, had ceased using the "All Defects" list (which, as noted in the April 2013 Evaluation of TFACTS, comes from a software application known as "Track Record") as a tool to manage their work. Instead, according to OIT at the time of the September 2013 TFACTS Update, the DMU had begun using a separate software application called Remedy. DMU leadership indicated that the unit had addressed the backlog of data issues (that is, corrections to data entry errors in individual cases) in full, and had for the past several months been able to address corrections immediately when they were received. However, the "All Defects" list as of September 13, 2013, as noted, did not reflect that progress. The most current version of the "All Defects" list does, indicating that the DMU has closed 717 data issues between September 2013 and March 2014. This does not necessarily reflect that the DMU addressed all of those issues between September 2013 and March 2014; it, instead, reflects that the DMU updated the relevant records to document work that had been previously done.

The Department also continues to categorize the 496 open list entries by priority, on a scale from 1 to 5 (with 1 as the most severe), as detailed in the table below:

Open TFACTS Issues, "All Defects" List, March 31, 2014										
Priority	Functional		Data Issues	Reports		Infrastructure				
	Defects	Change Requests	Defects	Defects	Change Requests	Defects	Change Requests			
Priority – 1	0	0	0	0	0	0	0			
Priority – 2	32	3	1	1	1	0	0			
Priority – 3	170	39	86	18	5	0	5			
Priority – 4	46	26	1	10	5	0	6			
Priority – 5	1	33	0	0	3	0	0			
No Priority Indicated	2	2	0	0	0	0	0			

This reporting continues to indicate that the Department believes that the Priority-1 issues have been resolved. The Department will have to continue to manage the 35 Priority-2 functional issues going forward to ensure that those receive appropriate prioritization and focus.<sup>13</sup>

## IV. Compliance with the Statewide Automated Child Welfare Information System (SACWIS) Requirements in the Settlement Agreement

The Settlement Agreement (X.A, X.B) requires the Department to establish and maintain a statewide computerized information system for all children in DCS custody that:

- is accessible in all regional offices;
- ensures user accountability;
- uniformly presents data, including the Adoption and Foster Care Analysis and Reporting System (AFCARS) elements;
- provides an immediately visible audit trail to the database administrators of all information entered, added, deleted or modified; and
- has necessary security to protect data integrity.

TFACTS satisfies the first four of those requirements, and the Department has work underway to meet the fifth. Specifically, TFACTS (1) is accessible in all regional offices across the state; (2) ensures user accountability by providing each end user with a unique access code that they must use to log in to TFACTS, allowing DCS to limit access to the database to appropriate personnel and to identify who has accessed the database; (3) uniformly presents data, including the AFCARS elements;<sup>14</sup> and (4) provides an immediately visible audit trail to the database

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<sup>&</sup>lt;sup>13</sup> Examples of Priority-2 issues include: (1) a user who, when logged in to a certain organizational profile, receives a system error when selecting a certain tab; the user does not receive that error when selecting that tab when logged in to a different organizational profile; (2) a user who receives an error message indicating that a field allowed for the user to enter a non-numeric character even though TFACTS expected that field to only include numeric characters; (3) a user who, despite the fact that the full resource home address has been entered in the system, can only see a partial address on the child's placement screen; (4) the permanency plan summary report generates extra, unnecessary pages; and (5) the education section of the permanency plan summary report displays the correct information, but the format is incorrect.

<sup>&</sup>lt;sup>14</sup> The Settlement Agreement requires that TFACTS "include uniform data presentation including but not limited to AFCARS elements from DCS for all children in the plaintiff class." Settlement Agreement (X.B.) While this provision is unclear on its face, the TAC interprets it to require DCS to adopt one of the practices that the General Accountability Office noted that child welfare systems had employed to improve AFCARS data quality:

To improve data reliability, some states have designed their information systems with special features to encourage caseworkers to enter the information. Four states responding to our survey and 3 states we visited designed their SACWIS with color-coded fields to draw attention to the data elements that caseworker are required to enter. For example, the AFCARS data fields in Oklahoma's system are coded red until the data are entered, after which the fields change to blue.

administrators of all information entered, added, deleted or modified. The Department most recently deployed the last of those, the audit trail, which documents all changes to data in the database, who made those changes, when they were made, and the previous state of the data before the change, meeting the requirements of the Settlement Agreement.

The only outstanding requirement, that TFACTS must include necessary security to protect data integrity, is still in process. As a threshold matter, it is important to note that information technology risks are constantly evolving; one has to merely read the paper daily to see all of the new cybersecurity threats that develop. As a result, the Department's work here will never be complete (because new cybersecurity threats will likely never cease to arise). In order to meet this requirement, then, the Department must develop the capacity, by maintaining qualified staff and implementing necessary hardware and software, to protect against, identify, and remediate security threats as they arise.

To that end, as discussed in the September 2013 TFACTS Update, the Department added a staff member who is a Certified Information Systems Security Professional (CISSP) to work on promulgating and implementing TFACTS security policies. The Department also requested that the State's Office of Information Resources (OIR) and an outside IT security vendor conduct vulnerability and penetration testing on the TFACTS application to assess potential areas of weakness. Those reviews, as discussed in the September 2013 TFACTS Update, validated much of the Department's approach to security, but also identified issues that the Department must continue to address going forward.

To respond to those issues the Department has to both perform software remediation and to deploy tools to help identify and remediate security vulnerabilities. The Department has begun remediating the most significant software issues and plans to retain an outside consultant to target closing the remaining issues by the end of this calendar year. The Department is also considering the purchase and implementation of additional products that will enhance its ability

Most States Are Developing Statewide Information Systems, but the Reliability of Child Welfare Data Could Be Improved, GAO Report 03-809 (July 2003).

In TFACTS, all AFCARS-required data elements are uniformly labeled in bold red font, as opposed to non-AFCARS elements that are labeled in blue font. In addition, in the event that a user is unable to see color, the AFCARS elements are also all labeled with a "+." That uniform presentation of the AFCARS elements meets the requirements of the Settlement Agreement.

Separate and apart from the Settlement Agreement, the Department is subject to federal guidelines and directives related to AFCARS reporting. An April 2013 review by the Children's Bureau of the Department's AFCARS reporting identified a number of modifications that were required for Tennessee to meet federal AFCARS reporting standards. The Department prepared an AFCARS improvement plan that was approved by the Children's Bureau on April 11, 2014. In that plan the Department documented that it has made the majority of the requested changes to AFCARS reporting already and has plans to address the remaining changes by early 2015.

<sup>15</sup> Because of the constantly evolving portfolio of cybersecurity threats, DCS has decided to perform these assessments again in July 2014 to ensure that the most current risks are identified.

to guard against cybersecurity threats. OIT is currently developing a proposal for the MAC's consideration to that end. The TAC will continue to monitor this work going forward to ensure the Department is on a path to meet this commitment on a reasonable time frame.

The Settlement Agreement (X.C) also requires an intensive data cleanup process to ensure data accuracy. Improvements in the design of the TFACTS case file fields, including the creation of appropriate "guardrails" and refinement of data elements and drop down boxes, as well as improvements in TFACTS training and support for field staff, reduce the risks of data entry error, and a range of regular data cleanup and audit processes are in place to help ensure the accuracy of data.

## V. Continued Efforts to Address Concerns related to OptimalJ

As noted in the April 2013 Evaluation of TFACTS, the Department faced three challenges arising out of the use of OptimalJ, a model-driven development environment: (1) that OptimalJ had not been used properly during the development of TFACTS, causing defects in the system; (2) the fact that OptimalJ could have prevented the Department from migrating TFACTS to a current, supported technology environment; and (3) that, because OptimalJ had been discontinued, the Department would be unable to find qualified staff to support TFACTS going forward.

In response to the first risk, the Department hired Compuware, the manufacturer of OptimalJ, to assess the models within TFACTS and fix any identified issues. That work is complete.

In order to address the second risk—that TFACTS could not be migrated to a current, supported environment due to OptimalJ—the Department worked with Compuware and OIR to test whether TFACTS can be migrated, and all involved entities concluded that it could be. With OIR's approval, the Department has migrated TFACTS to an environment that supports both OptimalJ and a potential replacement for OptimalJ simultaneously, allowing for maximum flexibility in the Department's future planning. This transition, which was accomplished with the move to the new data center, has effectively extended the time that the Department has to transition away from OptimalJ for several years.

Finally, with regard to the third risk—that the Department did not have enough technical staff experienced with OptimalJ to support TFACTS in the future—the Department took two key steps. First, as noted, DCS contracted with Compuware to provide training to Department staff on OptimalJ to enhance their ability to use it as a tool to maintain TFACTS. That increased skill and capacity mitigates the risk that DCS staff will not be able to use the tool going forward. And, second—and most significantly—as discussed in the September 2013 TFACTS Update, by

recruiting Jerry Jones, a former Compuware employee, the Department has brought in-house significant technical expertise with regard to both OptimalJ and TFACTS and now has the ability to train DCS technical staff on the use of OptimalJ internally without having to contract with an outside vendor. Both of those capacity-building exercises put DCS in a much improved position to manage OptimalJ going forward, and the Department has capitalized on them: Compuware and Mr. Jones have trained three DCS OIT staff in the use of OptimalJ, so the Department now has sufficient internal capacity to modify and enhance the OptimalJ models. In fact, the Department reports that since September 2013 all necessary OptimalJ model changes have been done by DCS OIT staff without support or advice from Compuware, successfully mitigating the risk that DCS will not have sufficient technical staff to maintain the OptimalJ models going forward.

Together, the Department's strategies have resulted in the Department having (1) stabilized OptimalJ models that no longer have the significant design and development flaws that existed when TFACTS was deployed; (2) several years to transition away from OptimalJ; and (3) the internal staff with the necessary knowledge, abilities, and skills to maintain the OptimalJ models during the transition away from OptimalJ. As long as the Department maintains that capacity and acts within that several-year timeframe, the bulk of the risk associated with OptimalJ has been mitigated. To be clear, though, the Department intends to phase out OptimalJ over time, eliminating that risk in full. Essentially, the Department intends to modify and enhance TFACTS using traditional Java software development (rather than an automated development tool like OptimalJ). As those modifications and enhancements are deployed, the Department, where feasible, will retire the OptimalJ-written code. The Department has committed that, with the exception of minimal OptimalJ modifications necessary to retire the OptimalJ-written code, it will not use OptimalJ going forward. Over time this approach will eliminate reliance on OptimalJ in full. <sup>16</sup>

## VI. The Department's Approach to IT Governance, Data Quality, and the Use of Data as a Management Tool to Drive Toward Outcomes for Children and Families

One of the key findings of the April 2013 Evaluation of TFACTS was that the Department needed to "adopt a more holistic and coordinated departmental approach to information technology, data management, and data quality by aligning the work of information technology, data analysis, and field operations staff." Undergirding that finding was the fact that the Department had not yet adopted comprehensive approaches to IT governance, data

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<sup>&</sup>lt;sup>16</sup> In some of the earlier discussions of the perceived threat posed by OptimalJ, OptimalJ took on a persona not unlike the HAL 9000 computer in the film 2001: A Space Odyssey, with the Department cast in the role of astronaut David Bowman (played by Keir Dullea), finding himself stranded and at the mercy of a computer that is beyond his capacity to control. Fortunately, the Department has proven itself capable of wresting control of TFACTS from OptimalJ.

quality/analytics, and the use of data to support and drive the Department's work with children and families.

## A. IT Governance

In the September 2013 TFACTS Update, the TAC described the development and evolution of the Management Advisory Committee (MAC) and the five Program Review Committees (PRCs), which serve as sub-committees of the MAC, as the Department's structure and process for

- providing Information Technology (IT) with strategic decisions and direction;
- establishing IT priorities;
- guiding IT planning;
- participating in IT project oversight; and
- providing a forum for all DCS programmatic areas on issues related to IT.

The MAC includes the Commissioner of DCS, who serves as the Chair, all DCS Deputy and Assistant Commissioners, the Chief Information Officer, and two regional administrators or other field representatives, one each appointed by Child Programs and Child Safety. There are five Program Review Committees (PRCs), four representing each program area (Child Safety, Child Programs, Child Health, and Juvenile Justice) composed of senior staff from each area and chaired by the Deputy Commissioner overseeing that program area, and one representing the "supporting lines of business" (including Fiscal, Legal, and Policy).

As the Department envisions it, staff members in each program area are expected to raise any IT-related needs or concerns with that program area's PRC. The PRC is expected to establish priorities for that work, which the Deputy Commissioner who chairs the PRC can then raise for consideration by the MAC. The full MAC, under the leadership of the Commissioner, is responsible for reconciling all of the IT-related needs raised by all of the Deputy Commissioners in order to set priorities and sequencing for OIT staff and resources. In short, the MAC is the Department's strategy to bring all of the program areas together to identify IT-related needs and to establish priorities for the Department's existing information technology staff and resources.

The MAC process is still evolving, which became particularly apparent when the schedules that the Department committed to in the September 2013 TFACTS Update began to slip, as discussed above. In response to those delays, the Commissioner has decided to convene the MAC monthly and has personally assumed responsibility for preparing the agenda. Commissioner Henry has also assigned his special assistant (the recently designated Assistant to the Commissioner for Child Welfare Reform) to serve as the liaison between the "lines of business" and OIT during the time between MAC meetings to ensure that the prioritized activities are proceeding as

anticipated or, if adjustments are required, to alert the MAC members. And, finally, as discussed above, the MAC most recently concluded that OIT was, in fact, understaffed and the Commissioner personally worked to obtain an additional \$750,000 to hire 13 additional consultants and five new state IT staff.

The plan for the MAC's functioning continues to be promising. The effectiveness of the MAC was certainly called into question when the schedules that DCS committed to in the September 2013 TFACTS Update slipped; however, with the appointment of Mr. Huertas and the personal involvement of the Commissioner in convening and setting agendas for the MAC and obtaining additional IT resources, it does appear that DCS has moved beyond that setback having learned significant lessons that will benefit the Department going forward.

## B. Reporting, Data Quality, and Data Analysis

As discussed in prior reports, the responsibility for data necessarily spans several organizational units: field operations, which is responsible for entering the data into the system and is considered the "owner" of the data; OIT, which is responsible for maintaining the hardware and software that store the data and for developing and running the reports that aggregate and display the data; and data analysis staff, whose role is to review and analyze the data to glean insight and actionable information from the data to share with program operations managers and leaders, who can then in turn use that information to improve agency performance.

The Department has established the "DCS Center of Excellence: Reports" (Reports Center), a structure and process designed to manage the identification, design, development, and deployment of TFACTS reports, including the responsibility to ensure the accuracy and reliability of the data in TFACTS. In this structure, each program area (or "line of business") has a designated project manager who is responsible for shepherding that program area's projects through the Reports Center process. DCS has hired a seasoned project manager to oversee the implementation of the Reports Center process. In the September 2013 TFACTS Update, the TAC expressed caution that the Department guard against this process becoming too inflexible, particularly given the large volume of then-existing requests for new reports, for fixes/enhancements of existing reports, and for the reinstatement of prior reports that had been discontinued.

Since that time, the TAC has been working with OIT leadership to try to fashion a more flexible approach to addressing those pre-existing reports and report requests that avoids what would otherwise be significant delays associated with running all the previously pending work through the new process. In part due to that work, in early May OIT initiated a Reports Center of Excellence (RCOE) process review to identify potential efficiencies to be gained. The Department concluded that the process was working for the most part, but that it had some

inherent bottlenecks that could be improved. The Department also concluded that a more iterative process that focused on early and often customer feedback could be more effective. As a result, the Department has decided to:

- Consolidate the report development process to be the responsibility of one set of staff, where it had previously been spread across three reporting lines;
- Adopt an iterative approach to developing the specifications of a report with an emphasis on increased interaction between the customer of the report and the report development team;
- Develop improved process metrics in order to better track and manage the report development process going forward; and
- Review all existing requests for fixes/enhancements to reports to determine where in the process each report should initially be placed to avoid starting every report from the first step, given that many have already moved beyond that posture.

These are promising steps that should help the Reports Center process become more efficient and effective going forward.

## C. The Department's Use of Data as a Management Tool

While developing reports to show accurate and reliable data is a critical first step, it is nonetheless merely a precursor to the ultimate objective of using that data to improve system performance to better help children and families to achieve meaningful outcomes. As a result, many child welfare agencies are working to become more data-driven—*i.e.*, to use the accurate and reliable data reported from their IT systems to inform their day-to-day work. While much of the focus of the Department has been on developing and refining specific reports, the Department leadership recognizes the importance of staff being able to understand the questions that each of the individual reports are designed to answer in the context of the broader mission of the Department, the core outcomes it is seeking to achieve, and the key measures of system performance. Understanding the inter-relationship between and among various reports and understanding how and when to use the reports is key to the "data-driven culture" that is the vision of the current leadership.<sup>17</sup>

As a necessary first step toward making data accessible and understandable, the Department's IT staff is developing a reports catalog (with an accompanying glossary) that will serve as a readily accessible resource for staff and will provide them with a clear understanding of all of the reports

practice.

<sup>&</sup>lt;sup>17</sup> As part of that vision the Department has commenced a "ChildStat" initiative that involves regular targeted reviews with regional leadership of individual cases. To date these reviews have focused on qualitative measures of

that are available to support the Department's work with children and families and the overall objectives of the reform. This reports catalogue will include all reports available to the Department, including those generated by OIT, Chapin Hall, and the Vanderbilt Center of Excellence.

The Department is now well positioned from a data availability standpoint to create the "data-driven culture" that the Commissioner has envisioned. The longitudinal data currently available from TFACTS, primarily captured in the reports available to the Department through its collaborations with Chapin Hall and Vanderbilt, provide the Department with the ability to understand system performance, to identify opportunities and develop strategies to improve, and to track and assess the impact of those strategies over time. The challenge for the Department is how to make this wealth of data readily accessible and understandable to managers and field staff and how to help them use the data to monitor, support, and guide day-to-day case practice and to design and implement strategies to improve longer term outcomes.

To address this challenge, the Department has convened a Data Use Continuous Quality Improvement (CQI) team with a charge to establish the universe of data available to the Department and to identify areas in which data may be more effectively utilized to improve practice. The team includes representatives from Quality Control, OIT, each of the primary practice areas (programs, health, safety, and juvenile justice), the Vanderbilt Center of Excellence, Chapin Hall, and the TAC. The team has met twice and will meet at least quarterly moving forward. The Department envisions that this group will play a key role in identifying the barriers to implementation of a data-driven culture and taking steps to mitigate those challenges.

Both by identifying for staff the reports and information most relevant to daily practice and training staff to utilize that information in meaningful ways, the Department envisions that this team will promote and encourage data-informed practice in all areas. As the Data Use CQI team develops a process for quality assurance of data provision, organization, and use, meetings will expand to include frontline staff from various practice areas, specialized units such as Independent Living or Child Welfare Benefits, and others, in order to ensure that a holistic evaluation takes place, taking into account as many perspectives as possible.

A crucial factor in increasing data use in daily decision-making is putting data directly in the hands of frontline staff. In order to facilitate this kind of decision support, the Department is preparing to request bids for a dashboard tool that will provide relevant and current TFACTS data directly to caseworkers. By providing the tools individuals need in order to incorporate data into their daily work, the Department hopes to begin the process of integrating data use into regular practice for everything from casework and supervision to fiscal decision making and placement. The Department intends to move a request for proposals through the state procurement process, with a target issuance date of this fall ideally leading to an award in early 2015.

These approaches have promise but are still early in development. The TAC will continue to monitor these efforts going forward.

### VII. Conclusion

Since the September 2013 TFACTS Update, the Department has continued to work intensely to support TFACTS and to continue to eliminate related challenges to generating and using quality data. The Department did, however, encounter a significant barrier to progress when it missed target completion dates on a number of prioritized enhancements. This failing demonstrated that the communication from OIT to the MAC was not sufficiently transparent and aligned. Since then, however, the Department has taken the lessons learned seriously and has embraced the MAC more robustly. Under the new Interim CIO, the Department has also become more transparent about its resource challenges, and the Commissioner and the MAC have delivered significant additional staffing to OIT to move priority work forward. While the schedule delays were avoidable and frustrating, it is nonetheless encouraging to see the Department and the MAC respond with vigor and focus.

The current DCS leadership correctly views the creation of a "data-driven culture" as a critical component of the Department's efforts to improve and sustain outcomes for children and families. Notwithstanding the important ongoing work to address defects and deploy enhancements and make TFACTS more responsive to the needs of the field, the Department now has a data system with the capacity to support that "data-driven culture." With a concerted effort over the coming months focused on providing data analytics support to the field, the Department can take greater advantage of that capacity and increasingly ensure that field operations and leadership have the data, information, and insight necessary to monitor and improve the Department's performance. However, this work is still in its formative stages and needs to include, among other things, clear allocation of responsibilities for analyzing data to glean actionable insight that can be used to drive practice improvement. It is incumbent upon the Department to focus conscientiously on this work during the next several months.